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1. Poly(styrene-butadiene-styrene) polymer having a high vinyl content in the butadiene block comprising in combination
 - i) a polystyrene content (PSC) within a range of 15-20% by weight
 - ii) a coupling efficiency (CE) of 50-80%
 - iii) a step I molecular weight (MW) between 9,000 and 10,000 kg/mol
 - iv) a vinyl content between 20-45%
2. The polymer according to claim 1 wherein the polystyrene content (PSC) is within a range of 16-19% by weight, preferably 16-18% by weight.
3. The polymer according to claim 1 wherein the coupling efficiency is within a range of 60-75%, preferably 65-70%.
4. The polymer according to claim 1 wherein the vinyl content amounts to 25-40% preferably 30-35 by weight.
5. Hot melt adhesive composition comprising:
 - a) a poly(styrene-butadiene-styrene) polymer having a high vinyl content in the butadiene block according to any one of claims 1-4;
 - b) a tackifying resin;
 - c) a plasticizer; and
 - d) an anti-oxidant.
6. The hot melt adhesive composition according to claim 5 characterized in that said polymer has the following characteristics

Polystyrene (PSC) content (%)	16-19, preferably about 19
CE (%)	60-75, preferably about 70
Step I MW (kg/mol)	9,400-9,600, preferably about 9,500; and

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Vinyl (%) 25-40, preferably about 30.

7. The hot melt adhesive composition according to any one of claims 5 to 6 having

- a) hot melt viscosity at 170°C during 24 hours lower than 100 Pa.S
- b) Rolling back tack: 1-5 cm
- c) Flap test, 500 g weight: higher than 120 minutes
- d) HP 40°C, 1 kg weight: higher than 50 minutes.

8. The hot melt adhesive composition according to anyone of claims 5-7 wherein the amount of tackifier in the composition comprises 50 to 200 parts by weight, preferably 100 to 150 parts.

9. The hot melt adhesive composition according to anyone of claims 5-8 wherein the amount of plasticizer in the composition is up to 100 parts by weight, preferably 5 to 75 parts by weight.